

REMARKS

Claims 1-5 are amended. New claims 9-14 are submitted. The amended and new claims are supported by the application as originally filed. No new matter is added.

Briefly, the claimed invention relates to a lubricant comprising a suspension of rice bran ceramic (RBC) in a liquid resin that is applied as a coating and dried to form a lubricating film. The suspension is easy to apply, capable of coating a complicated surface and can be dried to form a film that has good wear resistance and sliding properties.

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by JP 11-207757. Applicant traverses the rejection to the extent that it can be maintained.

JP 757 discloses a method for molding conventional composite articles from thermosetting resins that contain non-metallic fiber reinforcement and RBC [0004]. The articles have improved thermal properties and abrasion resistance. JP 757 fails to disclose a suspension of RBC in a liquid resin that can be applied as a film. Rather RBC is arranged in a mold, thermal setting resin with non-metallic fiber reinforcement is added thereto and the resin is cured [0006-0010]. There is no teaching that the composition in the mold is a suspension or that it is suitable for forming a film or that if a film were formed that it provides lubricity for a sliding member. Applicant respectfully submits that claim 1 is not anticipated by JP 11-207757 and requests that the rejection be withdrawn.

Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by JP 03-060389. Applicant traverses the rejection to the extent that it can be maintained.

JP 389 discloses the use of rice bran to make rice bran ceramic. Applicant submits that JP 389 does not disclose a lubricant composition comprising a liquid resin and rice bran ceramic. Note that the description and claims 1-3 of JP '389 all recite carbonizing grains of thermosetting resin and rice bran to obtain a hard, porous carbonaceous material (RBC). Further, the composition disclosed by JP 389 is a granular material, not a film, and there is no disclosure that it is capable of forming a film or that it provides lubricity for a sliding member. Applicant respectfully submits that JP 389 does not anticipate claim 1 and requests that the rejection be withdrawn.

Claims 1-3 and 5-7 are rejected under 35 U.S.C. §102(b) as being anticipated by JP 2002-030222. Applicant traverses the rejection to the extent that it can be maintained.

JP-222 discloses non-metallic parts formed by molding a blend of a resin and RBC followed by calcining at 500°C or more. The resin/RBC blend is in the form of pellets [0030]. Parts made according to the teachings of JP-222 have a lower friction of the sliding face of the part [0024]. JP-222 does not disclose a lubricant composition comprising a suspension of RBC in a liquid resin capable of coating and forming a dry film. Whatever lubricity is disclosed by JP-222 is limited to parts formed according to the disclosure in JP-222. The disclosure does not describe a general purpose lubricant, rather it simply discloses molded parts with lower surface friction.

Applicant respectfully submits that JP 222 does not anticipate claim 1-3 and 5-7 and requests that the rejection be withdrawn.

Claims 2-3 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 11-207757. Applicant traverses the rejection to the extent that it can be maintained.

As explained above, JP 757 discloses parts molded from fiber reinforced thermosetting resin and RBC. The molded parts have a low sliding abrasion [0004]. Wear resistance of a surface to sliding abrasion can depend on numerous characteristics of the surface such as surface hardness, or as the Office Action points out, the particle size of materials dispersed therein and exposed at the surface. Abrasion resistance and lubricity are not synonymous. There is no teaching or suggestion from JP 757 that a suspension of RBC in a liquid resin is suitable for forming a film having lubricating properties. Applicant respectfully submits that claims 2-3 are not obvious over JP 11-207757 and requests that the rejection be withdrawn.

Claims 2-3 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 03-060389. Applicant traverses the rejection to the extent that it can be maintained.

JP 389 discloses a resin/RBC molded object. Figure 3 shows the relationship between the firing temperature of the object and the coefficient of friction. Figure 3 teaches that processing conditions have an effect on the surface properties of the object. This does not suggest that RBC dispersed in a liquid resin is suitable as a lubricant for any two surfaces. To

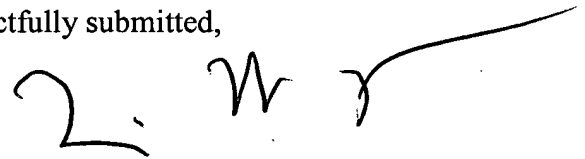
the extent that JP 389 teaches a lubricating effect, a point that applicant does not concede, it is a lubricating effect between surfaces wherein one surface is that of an object molded from a resin/RBC composition. Applicant respectfully submits that claims 2-3 are not obvious over JP JP 03-060389 and requests that the rejection be withdrawn.

Claims 3 and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over JP 2002-030222. Applicant traverses the rejection to the extent that it can be maintained.

Applicant is unclear as to the exact grounds for rejection of claims 3 and 7. Claims 3 and 7 recite a mean particle diameter for RBC powder suspended in liquid resin. The Office Action discusses the amount of porous carbonaceous material contained in a sliding member wherein the sliding member has a sliding surface. Applicant respectfully submits that the amount of porous carbonaceous material contained in a sliding member is irrelevant with respect to particle size recited in the claims. Further, the properties of the sliding member disclosed in JP 222 does not teach or suggest a lubricant comprising a powder of RBC suspended in a liquid resin capable of forming a film. Applicant respectfully submits that claims 3 and 7 are not obvious over JP 2002-030222 and requests that the rejection be withdrawn.

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,



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